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August 18, 2017

VIA ELECTRONIC FILING

Jocelyn G. Boyd, Esquire
Chief Clerk & Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: Annual Review of Base Rates for Fuel Costs of Duke Energy Carolinas, LLC
Docket No. 2017-3-E

Dear Ms. Boyd:

Please find enclosed for this docket, the South Carolina Office of Regulatory Staff's Direct Testimony and Exhibits of witnesses Willie J. Morgan, Dawn M. Hipp, and Gaby Smith.

Sincerely,

Andrew M. Bateman

Encl.

cc: All Parties of Record (via E-Mail and U.S. Mail)
David Butler, Esquire (via E-Mail)
Joseph Melchers, Esquire (via E-Mail)

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2017-3-E

IN RE: Annual Review of Base Rates for Fuel Costs)
of Duke Energy Carolinas, LLC) **CERTIFICATE OF SERVICE**

This is to certify that I, Karen Elliott, have this date served one (1) copy of the **DIRECT TESTIMONY & EXHIBITS OF GABY SMITH, DAWN M. HIPP AND WILLIE J. MORGAN** in the above-referenced matter to the person(s) named below by causing said copy to be deposited in the United States Postal Service, first class postage prepaid and affixed thereto, and addressed as shown below:

[PLEASE FIND LIST OF PARTIES SERVED ON THE FOLLOWING PAGES]



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August 18, 2017
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THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY & EXHIBITS

OF

DAWN M. HIPPI

AUGUST 18, 2017



DOCKET NO. 2017-3-E

**Annual Review of Base Rates for Fuel Costs of Duke
Energy Carolinas, LLC**

DIRECT TESTIMONY AND EXHIBITS OF

DAWN M. HIPPI

ON BEHALF OF

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

DOCKET NO. 2017-3-E

IN RE: ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS OF

DUKE ENERGY CAROLINAS, LLC

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Dawn M. Hipp. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as the Director of the Utility Rates and Services Department of the Office of Regulatory Staff ("ORS").

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received my Bachelor's Degree in Political Science from Minnesota State University - Moorhead. Prior to my employment with ORS, I managed the financial, operations and regulatory aspects for an environmental company that provided turn-key hazardous waste consulting services for the United States Department of Defense.

In 2004, I joined ORS as a Program Specialist for the Water and Wastewater Department. I became a Director in 2007 and currently manage the regulatory operations of the ORS Utility Rates and Services Department. In this role, I supervise the daily activities to provide regulatory analysis and monitor compliance related to electric, natural

gas, water and wastewater investor-owned utilities. In addition, I am responsible for the operations of the ORS Consumer Services Division.

Q. HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA ("COMMISSION")?

A. Yes. I have testified on numerous occasions before the Commission in connection with general rate cases and other proceedings.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to set forth ORS's recommendations resulting from its examination of Duke Energy Carolinas, LLC's ("DEC" or "Company") Distributed Energy Resource Program ("DERP") expenses, both actual and forecasted, for the time period of June 2016 through May 2017 ("Actual Period"), June 2017 through September 2017 ("Estimated Period"), and October 2017 through September 2018 ("Forecasted Period").

Q. WHAT EXPENSES RELATED TO THE COMPANY'S DERP ARE INCLUDED IN THIS PROCEEDING?

A. Pursuant to S.C. Code Ann. § 58-39-130(A)(2), an electrical utility with an approved DERP may recover associated costs that are reasonably and prudently incurred. The Company's DERP was approved in Commission Order No. 2015-515 and the Company included actual and forecasted avoided and incremental costs in this proceeding for the period of June 1, 2016 through September 30, 2018.

Q. PLEASE EXPLAIN THE INCLUSION OF DERP AVOIDED COSTS TO BE RECOVERED IN THIS PROCEEDING.

1 **A.** According to S.C. Code Ann. § 58-39-140, payments for electricity provided under
2 the DERP that are paid at avoided cost rates or rates negotiated pursuant to the Public
3 Utility Regulatory Policy Act of 1978 ("PURPA"), whichever is lower, are eligible to be
4 recovered through the DERP avoided cost component.

5 The Company incurred DERP avoided costs during the Actual Period related to
6 energy credit payments to customer generators and four (4) buy-all sell-all customer
7 agreements. In addition, the Company included avoided costs for these same buy-all sell-
8 all customer agreements for the Estimated and Forecasted Periods, and allocated these costs
9 using the same method the Company uses to allocate and recover variable environmental
10 costs.

11 **Q. PLEASE EXPLAIN ORS'S ADJUSTMENTS RELATED TO DERP AVOIDED**
12 **COSTS.**

13 **A.** ORS recommends two (2) adjustments to the Company's DERP avoided costs. The
14 adjustments include:

15 1) An adjustment of \$668 to reduce the Actual Period excess energy credits paid
16 to customer-generators in May 2017. The Company did not use the correct avoided cost
17 rate approved by the Commission in Order No. 2016-687 to calculate excess energy credits.
18 ORS applied the correct avoided cost rate and the adjustment is reflected on ORS witness
19 Smith's Audit Exhibit GS-10.

20 2) An adjustment of \$23,339 to the Forecasted Period to include an expected value
21 for excess energy credits to be paid to customer-generators. The Company did not include
22 a value for expected excess energy credit payments to customer-generators to be paid in
23 May 2018. ORS believes it is reasonable to use the amount the Company paid for excess

energy credits during the Actual Period as a proxy for excess energy credits to be paid to customer-generators in the Forecast Period. The adjustment is incorporated in ORS witness Morgan's Exhibits WJM-9, WJM-10, WJM-11 and my Exhibit DMH-1.

Q. WHAT TYPES OF EXPENSES DID THE COMPANY INCLUDE AS DERP INCREMENTAL COSTS?

A. The Company included general and administrative costs incurred to implement the Company's DERP, Net Energy Metering ("NEM") incentives, avoided capacity costs, amortization of solar rebates and related carrying costs, and costs for NEM revenue grade meters.

Q. PLEASE EXPLAIN ORS'S ADJUSTMENTS RELATED TO DERP INCREMENTAL COSTS.

A. ORS recommends two (2) adjustments to the Company's DERP Incremental Costs for the Actual Period. ORS's review of DERP-related costs includes a verification of the Company's calculations related to the Solar Rebate Program. During the review, ORS was unable to verify that a sample of residential and non-residential solar systems were sized accurately. The solar system size determines the amount of the solar rebate paid to the customer-generator. For that reason, ORS recommends the following adjustments related to the sample:

1) An adjustment of \$77,385 to reduce the Company's Solar Rebate Program Amortization;

2) An adjustment of \$64,764 to reduce Carrying Costs on Deferred Amounts.

ORS's recommended adjustment is limited to the corresponding sample that it was unable to verify. ORS will continue to review the Company's calculations related to the Solar

Rebate Program. The adjustments total \$142,149 as reflected in ORS witness Smith's Audit Exhibit GS-9.

Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S DERP INCREMENTAL COST FORECAST?

A. Yes. As shown on Exhibit DMH-2, the variance between the Company's DERP incremental expenses for the Actual Period and the estimated and forecasted expenses in Docket No. 2016-3-E was 47.36%.

Q. DOES ORS HAVE ANY RECOMMENDATIONS PERTAINING TO THE COMPANY'S DERP INCREMENTAL COST FORECAST?

A. Yes. ORS recommends revising the DERP incremental cost forecast to more accurately reflect the historic actual costs experienced by the Company due to the variance between the Company's forecast in Docket No. 2016-3-E and the Actual Period DERP incremental costs. There appears to be no indication that the Company's forecast will break from this trend. The ORS adjustment to the estimated and forecasted DERP incremental costs for the 12-month period beginning June 2017 equates to \$5,496,336 and reduces the total estimated and forecasted amount from \$11,605,440 to \$6,109,104. The ORS adjustment of the Estimated Period is \$1,824,619 and reflected on ORS witness Smith's Audit Exhibit GS-9. The total adjustment of \$5,496,336 is incorporated into Exhibit DMH-1 and ORS witness Morgan's Exhibits WJM-9, WJM-10 and WJM-11.

Q. DID THE COMPANY UPDATE THE VALUE OF DISTRIBUTED ENERGY RESOURCES?

1 A. Yes. As shown in Company witness Martin's testimony (page 8), DEC proposes a
2 total value of NEM distributed generation of \$0.05300/kilowatt-hour ("kWh") for small
3 solar generation and \$0.05298/kWh for large solar generation.

4 Q. IS THE COMPANY'S CALCULATION OF THE NEM INCENTIVE
5 CONSISTENT WITH DOCKET NO. 2014-246-E?

6 A. Yes. While the Company used the methodology approved in Commission Order
7 No. 2015-194 to calculate the NEM incentive, it should be recognized that DEC does not
8 use actual metered production data from customer-generators in its calculations. The
9 Company uses an average solar load shape provided by Clean Power Research for a typical
10 solar system in DEC service territory. This average solar load shape is used by the
11 Company to estimate the solar production of a customer-generator in the calculation of the
12 NEM incentive. Paragraph 10 of the Settlement Agreement approved by the Commission
13 in Order No. 2015-194 outlines the data to be used in the calculation of the NEM incentive:

14 *"The Utilities shall use actual customer-generator energy production data*
15 *to the maximum extent available to calculate the costs and benefits of net*
16 *metering on their system using the Methodology. In the absence of actual*
17 *customer metered production data from a customer-generator's DER, the*
18 *Utilities shall be allowed to estimate DER energy production for purposes*
19 *of implementing the Methodology, consistent with best practices relating to*
20 *such estimation and modeling."*

21 DEC installed NEM revenue grade meters for all NEM customer-generators in
22 order to accurately measure actual production from the customer-generator's DER.

Therefore, ORS believes the tools are in place such that DEC could use actual customer-generator metered production data in the calculation of the NEM incentive.

Q. PLEASE EXPLAIN THE DERP CHARGE PER ACCOUNT.

A. The fixed charge by which the Company proposes to recover DERP incremental costs ("DERP Charge") is determined by allocating DERP incremental expenses in the same way the Company allocates variable environmental expenses. The revenue is collected as a fixed charge per account to ensure that no account charge exceeds the annual recovery caps prescribed in S.C. Code Ann. § 58-39-150. ORS finds the Company's methodology to calculate the DERP Charge complies with Act 236 and with Commission's orders in previous DERP-related proceedings.

Q. WILL THE ANNUAL DERP CHARGE RECOVER ALL THE INCREMENTAL COSTS?

A. Yes. DEC's annual DERP charge will recover all DERP incremental costs from Residential, Commercial and Industrial customers as the cost is under the annual recovery cap.

Q. WHAT DID ORS CALCULATE AS THE ANNUAL DERP CHARGE?

A. Based on ORS's adjustments to the Company's DERP incremental costs, ORS calculated the following annual DERP Charges: Residential \$0.73, Commercial \$22.17, and Industrial \$1,090.49. Exhibit DMH-1 details the annual and monthly DERP Charge by customer class.

Q. PLEASE EXPLAIN THE UPDATE TO RIDER RNM THAT THE COMPANY HAS INCLUDED IN THIS PROCEEDING.

1 **A.** The Company updated the value of NEM to reflect the Company's proposed DERP
2 NEM Incentive calculation and avoided cost rates as approved by the Commission in Order
3 No. 2016-687. ORS reviewed the Company's modifications to Rider-RNM. ORS reserves
4 the right to address the rates and the terms and conditions in subsequent fuel proceedings
5 or other proceedings as appropriate.

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 **A.** Yes.

Office of Regulatory Staff
Calculation of DERP Charge
Duke Energy Carolinas, LLC
Docket No. 2017-3-E

EXHIBIT DME

(Over)/Under-Recovery of DERP Incremental Costs

June 2016 through September 2017

	Residential	Commercial	Industrial
Cumulative (Over)/Under-Recovery	(\$3,074,794)	(\$671,453)	(\$750,681)

(Over)/Under-Recovery of DERP Incremental Costs

October 2017 through September 2018

	Residential	Commercial	Industrial
Cumulative (Over)/Under-Recovery	\$3,427,447	\$2,273,904	\$2,438,763

Total DERP Charge

October 2017 through September 2018

	Residential	Commercial	Industrial
Cumulative Under-Recovery through September 2018	\$352,653	\$1,602,451	\$1,688,081
Number of Accounts	481,694	72,290	1,541,313
Annual Cost (\$)	\$0.73	\$22.17	\$1,090.49
Monthly DERP Charge (\$) ¹	\$0.06	\$1.85	\$90.87

¹ Does not include Gross Receipts Tax.

Office of Regulatory Staff
Variance in Estimated/Forecasted v. Actual DERP Incremental Costs
Duke Energy Carolinas, LLC
Docket No. 2017-3-E

EXHIBIT DMH-2

		2016							2017					Total
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
[1]	Actual Experience	\$ 147,522	\$ 170,203	\$ 181,975	\$ 202,519	\$ 221,666	\$ 284,602	\$ 279,545	\$ 426,836	\$ 415,045	\$ 421,377	\$ 554,013	\$ 576,619	\$ 3,881,922
[2]	Original Projection	\$ 373,483	\$ 344,387	\$ 422,241	\$ 489,782	\$ 555,435	\$ 620,380	\$ 685,102	\$ 661,687	\$ 724,449	\$ 782,030	\$ 838,632	\$ 877,525	\$ 7,375,133
[3]	Variance from Actual [1-2]/[2]	-60.50%	-50.58%	-56.90%	-58.65%	-60.09%	-54.12%	-59.20%	-35.49%	-42.71%	-46.12%	-33.94%	-34.29%	-47.36%